

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
20 October 2005 (20.10.2005)

PCT

(10) International Publication Number  
**WO 2005/097249 A1**

(51) International Patent Classification<sup>7</sup>: **A61M 25/00**  
(21) International Application Number:  
PCT/US2005/010534

(22) International Filing Date: 29 March 2005 (29.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/558,622 31 March 2004 (31.03.2004) US

(71) Applicant (for all designated States except US): **COOK  
INCORPORATED** [US/US]; 750 Daniels Way, Bloom-  
ington, IN 47404 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BURTON, David**  
[US/US]; 604 Glen Arbor Way, Bloomington, IN 47403  
(US). **DIXON, Chris** [US/US]; 1018 Graywell Drive,  
Bloomington, IN 47401 (US).

(74) Agent: **STANLEY, Richard, E., Jr.**; Brinks Hofer Gilson  
& Lione, P.O. Box 10087, Chicago, IL 60610 (US).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,  
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,  
ZM, ZW.

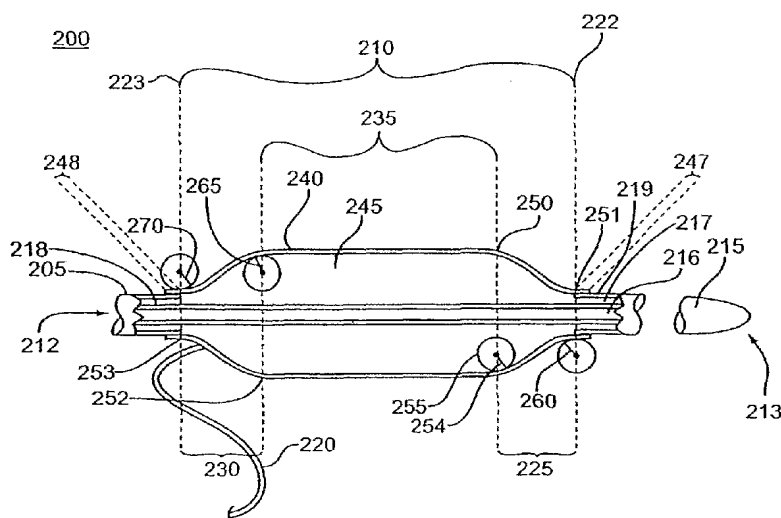
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: MEDICAL BALLOON WITH ENLARGED TRANSITIONAL RADII



(57) Abstract: The present invention provides a medical balloon having enlarged radii, which may be disposed on a dilation catheter. The enlarged radii balloon may reduce the trauma experienced by a patient both during the procedure and when the catheter is removed from the patient. The enlarged radii may provide the deflated balloon with smoother transitions and less mechanical rigidity at the balloon transitions.

WO 2005/097249 A1